

XV. *Descriptions of several new Species of Helæidæ from Australia.* By the Rev. FRED. WILLIAM HOPE, F. R. S. &c.

[Read 6th July, 1846.]

THE Marquis de Breme, in the year 1842, published the first part of his "Monograph des Cossyphides," in which he describes all the species of *Helæus* occurring in the collections of London and Paris. Thirty-eight only are mentioned, and at the period of its publication it was considered an important acquisition, as few individuals possessed even a single specimen in their Cabinets. Several of the species were described from my collection, and as I possess nearly all which are published I have little doubt that the others which are now described for this Society will be found to be new. I am inclined to consider *Helæus* as a group of much more importance than *Cossyphus*, and one which may be considered as analogous to *Cossyphus*, but totally distinct: little is known respecting its habits. In looking to the entomological fauna of Australia I do not see any reason why *Cossyphus* should not eventually appear there; most probably it exists; as in contrasting the groups of Asia and New Holland I find a preponderance of Asiatic types, with a mixture of forms altogether Australian. On this point however I need not dilate at present: it only remains for me to add, that, wishing to see described all the species of *Helæus* occurring in our metropolitan Cabinets or elsewhere, I shall feel obliged by the loan of any new species which Members of this Society may transmit to me for such a purpose.

Family HELÆIDÆ, Hope.

Sp. 1. *Helæus princeps*, Hope. (Pl. VI. fig. 1.)

Fuscus, disco in medio nigricante, marginibus pallidioribus seu rubro-fuscis, pedibusque concoloribus. Thorax antrorsum rotundatus (angulis anterioribus complicatis); foramen antice latius quam longius, postice tuberculo elevato nigricanti, foramine utrinque satis conspicuo. Elytra late ovalia, postice rotundata, medio disci atriori, suturâque elevatâ, sexque punctatis lineis elevatis in singulo apparentibus, marginibus late piceo-fulvis, punctisque atris elevatis sparsim aspersis. Corpus infra fusco-brunneum. Pedes concolores.

Long. lin. $15\frac{1}{2}$, lat. lin. $9\frac{3}{4}$.

In Mus. D. Hope.

The above magnificent insect, considerably larger than any

species of *Helæus* hitherto described, was sent to me by Captain Roe of Swan River; it was taken at Norfolk Sound.

Sp. 2. *Helæus contractus*, Hope. (Pl. VI. fig. 2.)

Ater, ovatus, postice vix dilatatus, antennis piceis; thorace marginibus elevatis, lineâque mediâ longitudinali elevatâ.

Elytra sub lente tribus lineis parum distinctis notata, sparsimque punctulata. Corpus infra atro-piceum, abdomine colore piceo inquinato, pedibusque concoloribus.

Long. lin. $9\frac{1}{2}$, lat. lin. $3\frac{1}{2}$.

In Mus. D. Hope.

The above insect inhabits the vicinity of the Swan River, and, as by some individuals it may be considered at a future period as forming a subgenus, I give the following anatomical sections:—

Fig. 2 a, mandible; 2 b, maxilla; 2 c, mentum, labium, and labial palpi; 2 d, antenna; 2 e, extremity of tibia and base of tarsus of the fore leg.

Sp. 3. *Helæus Spinolæ*, Hope. (Pl. VI. fig. 3.)

Niger, thorace marginibusque elytrorum atro-brunneis, pedibusque piceis. Ovatus, capite depresso, subrugoso; angulis thoracis haud complicatis, elytris in medio longis, pilis crispis et atris obsitis. Corpus infra piceum, pedibus concoloribus.

Long. lin. $9\frac{1}{2}$, lat. lin. $6\frac{1}{4}$.

In Mus. D. Hope.

Habitat circa Fluvium Cygneum.

The above insect is closely allied to *Helæus perforatus* of Kirby, but differs considerably in form,* it appears to be mediate between *H. perforatus* and *Spencii*, differing from both of them. It is named in honour of the Marquis of Spinola, a veteran in Entomology, and lately the author of a splendid Monograph on the *Cleridæ*.

Fig. 3 a, mandible; 3 b, maxilla; 3 c, mentum, labium, and labial palpi; 3 d, antenna.

Sp. 4. *Helæus testudineus*, Hope. (Pl. VI. fig. 4.)

Lato-ovalis, cænicolor, squalidus, capite depresso, angulis

* [It is of a much more regularly oval form, with each extremity somewhat acute; the anterior angles of the prothorax are subtruncate in front of the eyes and do not overlap each other, leaving an open space of nearly the breadth of the head. The disc of the prothorax has two impressed spots, and wants the central posterior tubercle which exists in *H. perforatus*.—J. O. W.]

anticis thoracis haud complicatis. Elytra suturâ elevatâ, medio disci crebris elevatis lineis satis notato, margine omni lato elytrorum undulato. Corpus infra concolor.

Long. lin. $8\frac{3}{4}$, lat. lin. $6\frac{3}{4}$.

In Mus. D. Hope.

The above insect was received by Mr. Gould from Port Essington.

Fig. 4 a, mandible; 4 b, maxilla; 4 c, mentum, labium, and labial palpi; 4 d, antenna; 4 e, extremity of tibia and base of tarsus of fore leg.

Sp. 5. *Helæus Bremeri*, Hope. (Pl. VI. fig. 5.)

Orbicularis, brunneo-testaceus, antennis flavescentibus. Thorax in medio convexus et atriore colore inquinatus. Elytra testacea, sublutea, glabra, sub lente confertissime punctulata. Corpus infra concolor, pedibus rufo-piceis.

Long. lin. $6\frac{1}{2}$, lat. lin. $4\frac{3}{4}$.

Habitat circa Fluvium Cygneum.

In Mus. D. Hope.

The above insect I have named in honour of the Marquis de Bremer, the author of the Monograph on the family of *Cossyphus*; at first appearance it resembles in form *Emcephalus* of Kirby; it is however allied to *Cilibe orbicularis*.

Fig. 5 a, maxilla; 5 b, mentum, labium, and labial palpi.

Sp. 6. *Helæus echinatus*, MacLeay. (Pl. VII. fig. 1.)

Ater, convexus, thorace angulis anticis complicatis, lineâque longitudinale mediâ ad scutellum interruptâ. Elytra echinata tuberculisque obsita. Corpus infra nigrum, pedibus concoloribus.

Long. lin. $6\frac{3}{4}$, lat. lin. 4.

The above species was sent to me by Mr. William Sharpe MacLeay, under the name of *echinata*, which I have retained, as it differs considerably in form from all other species,* and may form

* [This species is most nearly allied to *Helæus ovatus*, Guérin, Voy. de la Coquille, t. 5, f. 7, but differs from that species in its longer and more regular form, the thorax having a semicircular outline, and not being "un peu rétréci en avant," and the tubercles of the elytra are replaced in *H. ovatus* by broad spines.—J. O. W.]

at a future period the type of a new subgenus. Its anatomical details are given.

Fig. 1 *a*, mandible; 1 *b*, maxilla; 1 *c*, mentum, labium, and labial palpi; 1 *d*, antenna.

Sp. 7. *Helæus simplex*, Hope. (Pl. VII. fig. 2.)

Silphæformis, ater, capite subdepresso. Thorax convexus, marginibus elevatis. Elytra lineis elevatis haud valde conspicuis; per totum discum puncta sub lente confertissime apparent. Corpus infra nigrum, nitidum, femoribus tibiisque concoloribus tarsisque flavo-spongiosis.

Long. lin. 8, lat. lin. $4\frac{1}{2}$.

In Mus. D. Hope.

Received from Captain Roe, of the Swan River.

Fig. 2 *a*, extremity of tibia, and tarsus of fore leg.

Sp. 8. *Helæus tarsalis*, Hope. (Pl. VII. fig. 3.)

Phosphugæformis, ater, antennis subpilosis et piceis. Thorax convexus, lateribus externis margine elevato conspicuis. Elytra nigra, lineis elevatis notata, interstitiis valde punctulatis. Corpus infra nigrum tarsis pedum flavo-spongiosis.

Long. lin. 6, lat. lin. $3\frac{3}{4}$.

In Mus. D. Hope.

The above species is also from the Swan River.

Fig. 3 *a*, extremity of tibia, and tarsus of fore leg.

9. *Helæus marginellus*, Hope. (Pl. VII. fig. 4.)

Ater, antennis concoloribus; thorace convexo, creberrime subtuberculato, marginibusque lateralibus rubro-piceis. Elytra ternis lineis majoribus rugoso-elevatis conspicua, granulisque crebris in interstitiis satis apparentibus, margineque externo elytrorum rubro-piceo. Corpus infra nigrum, pedibus piceis.

Long. lin. 8, lat. lin. 5.

The above three species evidently form a section. The anatomical details are given in the plate. It was received from Norfolk Sound, and is, I believe, unique at present.

Fig. 4 *a*, maxilla; 4 *b*, mentum, labium, and labial palpi; 4 *c*, extremity of tibia, and base of tarsus of fore leg.

Genus SARAGUS, *Erichson*, Archiv. f. Naturg. 1842, p. 171.

Saragus lævicollis, *Fabricius* (*Silpha*).

(Pl. VII. fig. 5.)

Fig. 5 *a*, maxilla; 5 *b*, mentum, labium, and labial palpi; 5 *c*, antenna; 5 *d*, extremity of tibia, and base of tarsus of fore leg.

Genus MITUA. *MacLeay*.

Sp. unica. *Mitua Bidwelli*, *MacLeay's MSS.* (Pl. VII. fig. 6.)

Opatriformis, fuscus, antennis piceis. Caput depressum. Thorax angulis anticis porrectis subacutis, disco parum excavato et subpiloso. Elytra vix convexa, subdepressa, sutura elevata lineisque quatuor tuberculosi in singulo conspicua. Corpus infra concolor; margine externo elytrorum abdomen ambiente, internoque perforato seu valde varioloso.

Long. lin. $5\frac{1}{2}$, lat. lin. $2\frac{3}{4}$.

The above insect was sent to me under the name of *Mitua Bidwelli*, by Mr. William Sharpe MacLeay, which name I have retained; and as it is the type of a distinct genus, the anatomical details are given.

Fig. 6 *a*, labrum; 6 *b*, mandible; 6 *c*, maxilla; 6 *d*, mentum, labium, and labial palpi; 6 *e*, antenna.
